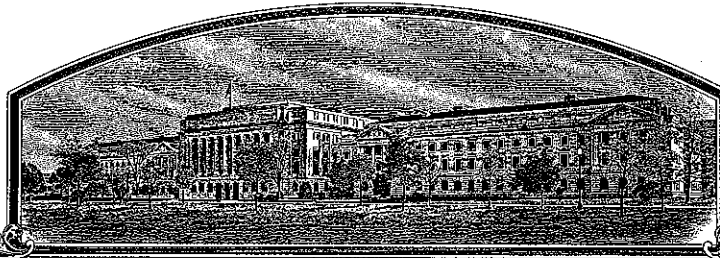


No.

200300179



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Florida Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture


AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION, FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.


NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLACEMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PROPAGATING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED IN THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE IDENTIFIED BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF SEEDS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEANUT

'Andru II'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-fifth day of August, in the year two thousand and five.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service


Secretary of Agriculture



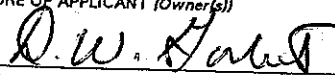

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Florida Agricultural Experiment Station		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER UF98614	3. VARIETY NAME Andru II
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) Office of Dean for Research 1022 McCarty Hall, University of Florida P. O. Box 110200 Gainesville, FL 32611-0200		5. TELEPHONE (include area code) 352-392-1784	FOR OFFICIAL USE ONLY PVPO NUMBER 200300179 DATE March 3, 2003
		6. FAX (include area code) 352-392-4965	
7. GENUS AND SPECIES NAME Arachis hypogaea L.	8. FAMILY NAME (Botanical) Leguminosae		FILING AND EXAMINATION FEE: \$ 2450 - DATE March 3, 2003
9. CROP KIND NAME (Common name) Peanut (Groundnut)			
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name) Florida Agricultural Experiment Station			CERTIFICATION FEE: \$ 432 - DATE June 28, 05
11. IF INCORPORATED, GIVE STATE OF INCORPORATION NA			
12. DATE OF INCORPORATION NA			
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. D. W. Gorbet North Florida Research and Education Center 3925 Highway 71 Marianna, FL 32446			14. TELEPHONE (include area code) 850-482-9904
			15. FAX (include area code) 850-482-9917
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)			
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)			
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input type="checkbox"/> NO (If "no," go to item 20)			
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED	
20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES (If "yes," give names of countries and dates) <input type="checkbox"/> NO USA - May, 2002			
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT (Owner(s)) 		SIGNATURE OF APPLICANT (Owner(s)) 	
NAME (Please print or type) D. W. Gorbet		NAME (Please print or type) Richard L. Jones	
CAPACITY OR TITLE Professor/Breeder	DATE 1/24/03	CAPACITY OR TITLE Dean for Research	DATE 2-21-02

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Florida Agricultural Experiment Station <i>RAY</i> University of Florida, IFAS <i>5/6/05</i>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME UF98614	3. VARIETY NAME Andru II
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) Office of Dean for Research 1022 McCarty Hall, University of Florida P. O. Box 110200 Gainesville, FL 32611-0200		5. TELEPHONE (include area code) 352-392-1784	FOR OFFICIAL USE ONLY PVPO NUMBER <i>200300179</i>
6. FAX (include area code) 252-392-4965	7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) University Ag. Expt. Stn. (Public)	8. IF INCORPORATED, GIVE STATE OF INCORPORATION NA	9. DATE OF INCORPORATION NA
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Dr. Daniel W. Gorbet North Florida Research and Education Center 3925 Highway 71 Marianna, FL 32446			FILING AND EXAMINATION FEES: \$ <i>3652-</i> DATE <i>March 33/31, 2003</i> CERTIFICATION FEE: \$ DATE
11. TELEPHONE (include area code) 850-482-9956	12. FAX (include area code) 850-482-9917	13. E-MAIL dgorbet@mail.ifas.ufl.edu	14. CROP KIND (Common Name) Peanut
15. GENUS AND SPECIES NAME OF CROP <i>Arachis hypogaea</i> L.		16. FAMILY NAME (Botanical) Leguminosae	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no", go to item 22) 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES USA, May 2002 <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? USA-Utility patent on oil chemistry, etc. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
24. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF OWNER <i>Daniel W. Gorbet</i>		SIGNATURE OF OWNER <i>Richard L. Jones</i>	
NAME (Please print or type) Daniel W. Gorbet		NAME (Please print or type) Richard L. Jones	
CAPACITY OR TITLE Professor/Breeder	DATE 3/17/03	CAPACITY OR TITLE Dean for Research	DATE 3/21/03

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

As noted.

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Foundation seed sold in May 2002.

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

Variety effected by three U.S. Utility Patents: 1) No. 5,922,390; 2) No. 6,063,984; 3) No. 6,121,472

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705.

Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

16a. Exhibit A - Origin and Breeding History of Variety

Andru II (UF98614) came from a cross made in the greenhouse at Marianna, Florida in 1990. The purpose of the cross was to incorporate the "high oleic" oil chemistry in material to select for good pod yields, good grades, early maturity, tomato spotted wilt virus resistance with improved oil chemistry. Andru II originates from a three-way cross with the female parent being an F₁ plant from the cross of F627B (UF breeding line) and the early maturity cultivar Andru 93. The male parent was a backcross three selection of 'Sunrunner' with F435-HO (high oleic). A pedigree selection program was followed in the F₁-F₆ under full spray/management production conditions. Selection pressure in the F₂-F₆ was making individual plant selections from 120-30 plants per generation in field plots. Only a single plant was saved for advancing each generation that ultimately produced Andru II. Population size was F₂ (120) and F₃-F₅ (30 plants each generation), with seed of two F₆ plants being bulked to initiate yield tests in the F₇ generation.

Pedigree = 90XOL41-9-1-1-1-b2-B =
[(F627B x Andru 93) x Sunrunner HO BC₃]

All parents and progeny are *Arachis hypogaea* ssp. *hypogaea* var. *hypogaea*. F627B- is an unreleased uniform true breeding UF line that originates from a cross of breeding material related to the 'Florunner' and 'Sunrunner' varieties. Andru 93 is a UF cultivar released in 1993, originating from a cross of a sisterline of Florunner and a component line of 'Early Bunch'. The Sunrunner BC₃ was a selection from a cross of a component line of Sunrunner crossed with the high oleic oil chemistry breeding line F435-2 HO.

The F435-HO parent is the male parent of Andru II and a breeding line from the University of Florida program. It is an outcross/mutation selection from a Florispan derivative that has high oleic oil chemistry. This line was first reported in a 1987 article in *Peanut Science* (Norden, et al.). It has been widely used in several peanut breeding programs around the world. SunOleic 95R was the first commercial variety released with this breeding background with high oleic oil.

Plants of Andru II are intermediate to semi-runner growth habit with average runner size pods and seed. The branching, leaf size, plant color, and center stem height are normal, with leaf color being similar to somewhat lighter green than Andru 93. The seed of Andru II are pink and rounded to short/broad, being similar in size and shape to Georgia Green's seed, but not quite as elongated as Florunner.

Andru II has been uniform and stable in plant, pod, and seed characteristics in all tests since field yield trials were initiated in 1997. There are no evident variant types in Andru II. These observations include field tests and seed increases through the 2004 season in Florida.

References:

- 1) Gorbet, D. W. 2003. Andru II – A new early high oleic peanut cultivar. U. Fla. Agric. Exp. Sta. NFREC Res. Rpt. 03-4, 5 p.
- 2) Gorbet, D. W., and D. A. Knaft. 1995. Registration of 'Andru 93' Peanut. *Crop Sci.* 35:1507.
- 3) Norden, A. J., D. W. Gorbet, and D. A. Knaft. 1985. Registration of Sunrunner Peanut. *Crop Sci.* 25:1125.
- 4) Norden, A. J., D. W. Gorbet, D. A. Knaft, and C. T. Young. 1987. Variability in oil quality among peanut genotypes in the Florida breeding program. *Peanut Sci.* 14:7-11.
- 5) Norden, A. J., R. O. Hammons, and D. W. Gorbet. 1978. Registration of Early Bunch Peanut. *Crop Sci.* 18:913-914.
- 6) Norden, A. J., R. W. Lipscomb, and W. A. Carver. 1969. Florunner, a new peanut variety. U.F. Agric. Expt. Circ. S-196.

16.b.c. Exhibit B – Novelty Statement

Exhibit C – Objective Description of Variety

Andru II is most similar to Andru 93 in overall plant characteristics. However, Andru II has "high oleic" oil chemistry and Andru 93 has normal oil chemistry. The seed oil of Andru II has about 80% oleic fatty acid (18:1) where Andru 93 seed has oil with only about 54% oleic fatty acid content. Andru II also has much better resistance to tomato spotted wilt virus (TSWV) than Andru 93.

Andru II is a runner market-type peanut with semi-runner growth habit. The primary lateral branches tend to turn somewhat upward. The foliage color is very similar to Andru 93, being lighter green than Florunner. Seed of Andru II are plump, rounded to short/broad with a pink testa and a 100-seed weight of about $57g \pm 1.5g$. Pod yields of Andru II have been almost 10% greater than Georgia Green in Florida tests. Andru II has resistance to TSWV equal to or better than Georgia Green. Andru II has an O/L of about 32, based on Florida data.

Using the 1-4 scale for resistance on diseases (4 = highly resistant and 3.5 = resistant), Andru II should rate about a 3 – 3.5 for resistance to TSWV and a 2.5 for white mold (*S. rolfsii*) resistance. We have no documented resistance to insects. See attached tables for Exhibit D.

Table 1. Data on Andru II in Florida Tests (1997-2001).

Entry	Pod Yield (lbs./A)	% TSMK ¹	% ELK ²	100 seed wt. (g) ³	Disease rating ⁴	
					A	B
Andru II	4127	74.0	18.5	56.8	3.2	3.2
Georgia Green	3718	77.0	18.0	57.6	3.5	3.1
SunOleic 97R	2931	76.5	18.9	58.9	5.6	2.5

¹SMK = sound mature kernels or seed riding a 16/64th inch slotted screen.

²ELK = extra large kernels or seed riding a 21.5/64th inch slotted screen.

³Weight in grams of 100 sound mature seed.

⁴Disease rating for TSWV on A) 1-10 scale, where 1 = no disease, and b) 4-1 scale (4 = highly resistant).

Table 2. Tomato spotted wilt studies in Florida and Georgia (1999-2000)¹.

Entry	% Disease			Yield (kg/ha)		
	GA	FL	Mean	GA	FL	Mean
1999						
Georgia Green	61.7	73.8	67.7	2074	1010	1542
GK-7	82.1	87.9	85.0	1471	435	953
Andru II	59.2	56.7	57.9	2725	1625	2175
Andru 93	82.9	87.9	85.4	1444	665	1055
2000						
Andru II	24.1	21.6	22.6	4084	3772	3929
Georgia Green	43.8	31.3	37.5	3358	3392	3375
Virugard	46.7	21.0	33.9	3306	3346	3325
AT 1-1	62.1	46.7	54.4	3329	3031	3180
GK-7	74.2	48.5	61.4	2492	2311	2401

¹Data from Dr. Albert Culbreath, University of Georgia, Tifton.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
PEANUT (*Arachis hypogaea*)

NAME OF APPLICANT(S) Florida Agricultural Experiment Station ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Office of Dean for Research 1022 McCarty Hall, University of Florida P. O. Box 110200, Gainesville, FL 32611-0200	VARIETY NAME OR TEMPORARY DESIGNATION Andru II FOR OFFICIAL USE ONLY PVPO NUMBER 200300179
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., or) when number is either 99 or less or 9 or less.

1. BOTANICAL TYPE:

<input type="text" value="1"/>	Flowering on the Main Stem:	1 = ABSENT	2 = PRESENT
<input type="text" value="1"/>	Branching Pattern:	1 = ALTERNATE - Pairs of vegetative & reproductive branches (Virginia) 3 = OTHER (Specify) _____ 2 = SEQUENTIAL - Continuous reproductive branches (Valencia-Spanish) _____	

2. PLANT:

<input type="text" value="2"/>	Habit:	1 = PROSTRATE (Florunner) 2 = DECUMBENT (NC-5)	<input type="text" value="3"/>	Branching:	1 = SPARSE (Valencia) 2 = MODERATE (Starr)
		3 = SEMI-ERECT (Florispán) 4 = ERECT (Starr)			3 = PROFUSE (Florunner)

3. MATURITY:

<input type="text" value="2"/>	Region:	1 = VIRGINIA, NORTH CAROLINA	2 = S.E. UNITED STATES	3 = S.W. UNITED STATES	4 = OTHER
<input type="text" value="1"/> <input type="text" value="3"/> <input type="text" value="0"/>	NUMBER OF DAYS TO MATURITY				
<input type="text" value="7"/>	NO. OF DAYS EARLIER THAN	<input type="text" value="2"/>	1 = STARR 2 = FLORUNNER 3 = FLORIGIANT 4 = VIRGINIA 61R 5 = NC-2 6 = NC-5 7 = SOUTHEASTERN RUNNER 56-15 8 = OTHER (Specify) _____		
<input type="text" value=""/>	NO. OF DAYS LATER THAN	<input type="text" value=""/>			

4. LEAVES:

<input type="text" value="2"/>	COLOR AT 60 DAYS: (Nickerson Color Designation):	1 = LIGHT GREEN (10Gy 6/9)	2 = MEDIUM GREEN (2.5G 5/9)
		3 = DARK GREEN (5G 4/7)	4 = OTHER (Specify) _____
<input type="text" value="6"/> <input type="text" value="0"/>	MM. LEAFLET LENGTH (Basal leaflet of the youngest fully opened leaf)		
<input type="text" value="2"/> <input type="text" value="6"/>	LEAFLET LENGTH/WIDTH RATIO		

5. POD: (Average for 20 pods at maturity)

<input type="text" value="2"/> <input type="text" value="7"/>	MM. LENGTH	<input type="text" value="1"/> <input type="text" value="3"/>	MM. DIAMETER
<input type="text" value="4"/> <input type="text" value="6"/> <input type="text" value="2"/> <input type="text" value="2"/>	KG./HA. POD YIELD	<input type="text" value="8"/>	1 = STARR 2 = FLORUNNER 3 = FLORIGIANT 4 = VIRGINIA 61R 5 = NC-2 6 = NC-5 7 = SOUTHEASTERN RUNNER 56-15 8 = OTHER (Specify) <u>Georgia Green</u>
<input type="text" value="1"/> <input type="text" value="1"/>	% MORE THAN		
<input type="text" value="6"/>	% FANCY SIZE: (% <u>13.46</u> mm., 34/64 inch, spacing set on presizer roller)		

5. POD (Average for 20 pods at maturity):

- NUMBER OF SEEDS PER POD: 1 = 1 2 = 2 3 = 3 4 = 3-4 5 = 2-3-4
- CONstriction: 1 = SHALLOW OR NONE (Virginia 56R, Argentine) 2 = MEDIUM (Virginia 61R) 3 = DEEP (Starr)
- SURFACE: 1 = GLABROUS (Florunner) 2 = PUBESCENT (Florispán)
- BEAK: 1 = ABSENT 2 = INCONSPICUOUS 3 = PRONOUNCED

6. SEED (Mature, cured but not aged):

- COAT COLOR: 1 = WHITE (Pearl) 2 = CREAM 3 = TAN (Starr) 4 = BROWN 5 = PINK (Florigiant)
6 = RED 7 = PURPLE 8 = DARK PURPLE 9 = VARIGATED
10 = OTHER (Specify) _____
- COAT SURFACE: 1 = SMOOTH 2 = INDENTED 1 = UNIFORM COLOR 2 = BLEMISHED
1 = SPHERIODAL (Starr) 2 = SHORT-BROAD (Florunner) 3 = ELONGATED-SLENDER (Dixie Runner)
- SHAPE: 4 = CYLINDRICAL-TAPERED ENDS 5 = CYLINDRICAL-BLUNT ENDS (NC-2) 6 = OTHER (Specify) _____
- MM. LENGTH MM. WIDTH GRAMS PER 100 SEED (8% Moisture)

7. DISEASE RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

- SOUTHERN STEM ROT RUST
- EARLY LEAF SPOT VIRUS X
- SOUTHERN LEAF SPOT MOSAIC
- POD ROT COMPLEX OTHER (Specify) Tomato Spotted Wilt Virus
- Scale 1-4 4 = highly resistant*
- 3-3.5*

8. INSECT RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

- THRIPS BURROWING BUG
- LEAF HOPPER NEMATODE (Specify species)
- SOUTHERN CORN ROOTWORM LESSER CORNSTALK BORER
- APHID OTHER (Specify) _____
- 2.5 White mold S. rolfsii*

9. COMPARISON OF SUBMITTED VARIETY WITH ONE OR MORE SIMILAR VARIETIES:

VARIETY	OIL* (%)	PROTEIN* (%)	OLEIC: * LINOLEIC ACID RATIO	IODINE* NUMBER	SHELLING (%)	SMK** (%)	ELK+ (%)	MAIN STEM HEIGHT (CM)
SUBMITTED	49.1	27.0	32.3	78	76.3	74.0	18.5	37.2
SIMILAR	49.8	27.3	32.8	79	76.4	74.4	18.0	38.7
NAME OF SIMILAR VARIETY	Florunner	C-99R	SunOleic 97R	SunOleic 97R	AT 1-1	AT 1-1	Georgia Green	SunOleic 97R

* From Sound Mature Kernels ** Sound Mature Kernels + Extra Large Kernels

10. INDICATE A VARIETY WHICH MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
POD COLOR	Andru 93	SEEDLING VIGOR	Andru 93
SEED DORMANCY	Andru 93	HULL THICKNESS	AT 1-1
SEED SIZE	Georgia Green	LEAF COLOR	Andru 93

11. COMMENTS (Additional description or clarification - Such as: Relative disease reactions may be compared with standard varieties)

Andru II has tomato spotted wilt virus resistance equal to or better than Georgia Green.

Exhibit D - Additional Description of Variety

Andru II is an early maturity runner market-type peanut variety with excellent pod/seed yield potential, very good tomato spotted wilt (TSWV) resistance, excellent oil quality (high oleic), with some resistance to white mold (*S. rolf sii*).

Table 1 gives data on pod yield, grading factors, and disease rating in twenty-five Florida tests conducted at Marianna and Gainesville (1997-2001). These data indicate the pod yield advantage of Andru II over Georgia Green and SunOleic 97R. Seed size is similar based on these data but SunOleic 97R tends to have somewhat larger seed than Andru II if disease pressure is less (i.e., Gainesville). Andru II shows better disease resistance (mostly TSWV) than SunOleic 97R and equal to somewhat better than Georgia Green.

Table 2 data is from early planted tomato spotted wilt studies conducted at Marianna, Florida and Tifton, Georgia, under high pressure conditions. Andru II had less disease and greater pod yields than the resistant check (Georgia Green) in all four tests.

Table 3 gives data on field tests inoculated with *S. rolf sii*, comparing Andru II to Georgia Green and Andru 93, showing Andru II with some resistance to *S. rolf sii*.

Table 4 gives data on oil chemistry of Andru II. Andru II has "high oleic" oil chemistry with about 80% oleic (18:1) and 2.5% linoleic (18:2) fatty acid content. This is essentially like SunOleic 97R and from the same genetic source. This is about 47-48% higher in 18:1 than Georgia Green, which should greatly enhance the stability or shelf-life of the oil and products made from Andru II, compared to Georgia Green, Florunner, and other "normal chemistry" peanuts. Data from peanut and other studies would also indicate a probable health advantage from this type peanut (high oleic).

Table 5 gives chemistry and flavor data on Andru II compared to Georgia Green from 1999 Florida crop samples. These data further support the high oleic chemistry data from Florida tests and indicate that Andru II has acceptable flavor.

Table 6 gives blanching data on samples from 1998-2000 crop at Marianna, comparing Andru II to Georgia Green and C-99R. Results indicate that Andru II blanches very similar to Georgia Green and should be acceptable to the industry.

Table 7 gives data on seed size distribution of Andru II compared to Georgia Green (2000), C-99R (1998) and Andru 93 (1998). These and other data on grading would indicate that Andru II is similar to Georgia Green in seed size and distribution. Andru II has smaller seed with less jumbos compared to C-99R.

Table 3. Evaluations for resistance to *S. rolfii* in inoculated field tests at Marianna, Florida (1999-2001).

Entry	Pod Yield (kg/ha)	Disease rating ¹	
		A	B
Andru II	3481	3.3	3.2
Georgia Green	2783	4.2	2.8
Andru 93	<u>2227</u>	<u>6.1</u>	<u>2.2</u>
LSD(.05) =	403	0.6	0.2

¹Disease from *S. rolfii* rated A) on 1-10 scale, 1 = no disease and B) on 4-1 scale, 4 = highly resistant.

Table 4. Data on oil quality of Andru II.*

Entry	Fatty Acid Content		Oil
	Oleic (18:1)	Linoleic (18:2)	
	----- % -----		
Andru II	80.9	2.5	49.1
Georgia Green	54.8	25.1	51.3
Florunner	56.0	24.1	49.9
SunOleic 97R	80.7	2.5	49.2

*Data based on no less than 10 samples for fatty acid and four for oil percent.

Table 5. Chemical and flavor data on Andru II from a commercial lab.

Entry	Fatty Acids			Oil	Sugar	Flavor*
	16:0	18:1	18:2			
Andru II	5.2	77.3	4.6	50.0	3.3	4.6
Georgia Green	9.7	51.5	26.6	53.0	3.5	5.0

*Flavor scores 1-5, 5 = best.

Table 6. Blanching data on Andru II (1998-2000)¹.

Entry	Splits	Whole	Not	Partial
----- % -----				
Andru II	8.3	77.9	6.8	5.3
Georgia Green	8.2	82.3	3.8	4.0
C-99R	6.2	83.2	2.3	4.3

¹Data from Mr. Walt Mozingo, VPI, Suffolk, VA.

Table 7. Andru II seed sizing data (1998-2000)¹.

Entry/Year	Percent on Screen Size (64 th inch)				SS	OK	Meat
	21	18	16	14			
<u>2000</u>	----- % -----						
Andru II	30.2	33.6	6.8	1.3	4.6	1.3	76.5
Georgia Green	35.1	34.4	3.7	0.8	2.7	0.5	77.2
<u>1999</u>							
Andru II	20.0	37.0	9.4	4.0	2.0	3.5	75.9
C-99R	52.0	15.2	4.0	1.8	1.4	2.0	76.4
Andru 93	12.6	31.5	14.6	6.8	2.8	5.3	73.6

¹Data from Florida samples

Ownership Statement

Andru II originates from a cross made by D. W. Gorbet in the greenhouse at the Marianna NFREC in 1990. All selections were made under sprayed (leafspot fungicide) programs with medium to high management inputs. Seed from two F₆ plants were bulked to initiate field yield tests at Marianna in 1997. UF98614 was approved for release by the University of Florida Agricultural Experiment Station (FAES) in 2002 as a new high oleic, early maturity peanut cultivar, designated as Andru II.

Florida Foundation Seed Producers, Inc. (FFSP) has been authorized to produce breeder and foundation seed of Andru II for commercial distribution. Only companies with approved contracts with FFSP are authorized to produce and sell seed of Andru II.

Andru II was developed by FAES scientists (breeder). By agreement between the breeder and FAES, this invention belongs to FAES and all rights, access, and use of this invention shall be according to FAES policy. Also, Andru II is impacted by three University of Florida utility patents on the "high oleic" oil chemistry (U.S. Patent No. 5,922,390; 6,121, 472; and 6,063,984). These latter three patents impact the commercialization of all "high oleic" peanut and such arrangement must be made with the University of Florida Foundation for marketing any such peanut cultivars.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Florida Agricultural Experiment Station University of Florida, IFAS <i>RAP 5/6/05</i>	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER UF98614	3. VARIETY NAME Andru II
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) Office of Dean for Research 1022 McCarty Hall, University of Florida P. O. Box 110200 Gainesville, FL 32611-0200	5. TELEPHONE (include area code) 352-392-1784	6. FAX (include area code) 352-392-4965
7. PVPO NUMBER 2-00300179		

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. ☒ YES ☐ NO9. Is the applicant (individual or company) a U.S. national or U.S. based company?
If no, give name of country ☒ YES ☐ NO10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

☒ YES ☐ NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

☒ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

D. W. Gorbet (Professor) - peanut breeder for Florida Agricultural Experiment Station

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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